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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,851	04/19/2001	Jurgen Heuser	Mo-6284/LcA 32,990	6320

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02/11/2003

Patent Department
Bayer Corporation
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Pittsburgh, PA 15205-9741

EXAMINER

WITHERSPOON, SIKARL A

ART UNIT

PAPER NUMBER

1621

DATE MAILED: 02/11/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,851

Applicant(s)

HEUSER ET AL.

Examiner

Sikarl A. Witherspoon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Examiner has considered applicants' amendment filed December 2, 2002.

In light of said amendment, the Examiner has withdrawn the rejections of record.

However, applicants' amendment prompted the following new rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cicha et al (WO 97/30932). The instant claims are drawn to a process for producing phosgene which is low in carbon tetrachloride content by the reaction of carbon monoxide with chlorine in the presence of elemental carbon, in a reactor, wherein the gas stream emerging from the reactor is at a temperature of 30 to 80° C and under a pressure of 120 to 400 kPa.

Cicha et al teaches a process for preparing phosgene by reacting carbon monoxide with chlorine in the presence elemental carbon at a temperature of 40-300° C, preferably, 50-150°C. The phosgene produced has a carbon tetrachloride content of less than 300 ppm, preferably, less than about 100 ppm (p 3, lines 18-32).

Cicha et al differs from the instant invention in that applicants' process recites a specific pressure range, while Cicha et al does not recite a pressure. As such, it is

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assumed that Cicha's process is conducted at standard pressure, which is 101 kPa.

The instant claims are rendered obvious in view of Cicha et al absent a showing of unexpected or superior results. The difference in pressure between 101 and 120 kPa is minimal, and such a range is well within the experimental range that one of ordinary skill in the art would employ in attempting to optimize process results.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cicha et al as applied to claims 2-4 and 8 above, and further in view of Obrecht, (U.S. 4,231,959). The instant claim is drawn to carbon monoxide having a methane content of 50 ppm at most. Cicha et al do not teach such a limitation. However, Obrecht teaches a process for preparing phosgene where in carbon monoxide comprising 0.12 mole percent of methane is reacted with chlorine. Although Obrecht does not specifically teach 50 ppm of methane, the reference shows that trace amounts of methane may be present in the carbon monoxide. It would have been suggested to one of ordinary skill in the art to modify the amount of methane presence in the carbon monoxide reactant, with the motivation of optimizing the concentration of phosgene produced.

Response to Arguments

Applicant's arguments filed December 2, 2002 have been fully considered but they are not persuasive. Applicants argue that the Cicha reference disclose nothing relating to pressure, and that the Obrechts reference provides no information about the criticality of pressure and temperature, nor that these parameters may influence the content of carbon tetrachloride.

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The Examiner asserts that applicants have not successfully shown the criticality of the temperature and pressure ranges recited in the present claims. The Examiner sees no superior or unexpected attributes in the phosgene afforded by employing a temperature of 30 to 80° C and pressure of 120-400 kPa. Cicha teaches a reaction temperature that is partially encompassed by applicants' range, specifically, 40-300° C. The pressure used in Cicha process is assumed to be standard (101 kPa), since there is no specific mention of a pressure range. As stated in the previous Office Action, the difference in pressure between 101 and 120 kPa is minimal, and such as range is well within the experimental range that one of ordinary skill in the art would employ in attempting to optimize process results. Furthermore, Cicha clearly teaches that the phosgene produced has a carbon tetrachloride content, preferably, of less than 100. Table 1 on page 5, in Cicha et al shows carbon tetrachloride contents of 90 ppm or less in some cases.

The Examiner does not find applicants' argument persuasive, and contends that the burden is on applicants to show that the recited pressure and temperature ranges are critical. The Examiner asserts that the rejection of claims 2-4 and 8 over Cicha et al, as well as the rejection of claim 5, further in view of Obrecht is proper.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikarl A. Witherspoon whose telephone number is 703-605-1206. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 703-308-4532. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

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Sikarl A. Witherspoon
Patent Examiner
Technology Center 1600

February 6, 2003

A handwritten signature in black ink, appearing to read "S. Barts", is written over a horizontal line.

Samuel Barts

Primary Patent Examiner

Technology Center 1600